

Quick Start Guide

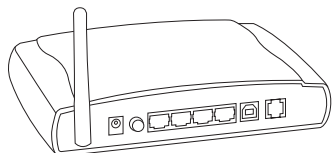


SIEMENS SL2-141-I ADSL WLAN Router

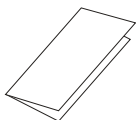
- Do never open the housing!
- Use only the power supply provided with this device.
- Use only the cables provided with this device and do not perform any modifications on them.

Before you begin

Verify that the following items came with your SIEMENS SL2-141-I kit:



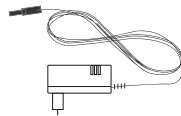
SIEMENS SL2-141-I



Quick Start Guide



CD-ROM



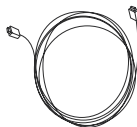
Power supply



USB cable
(blue)



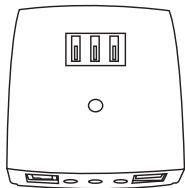
ADSL cable
(gray)



Ethernet cable
(yellow)

Optional:

If your service provider include an ISDN ADSL-Splitter, follow the instructions in section “Step 1: Install the ISDN ADSL-Splitter”. If you need further assistance installing the filter, please contact your service provider.



ISDN ADSL-Splitter

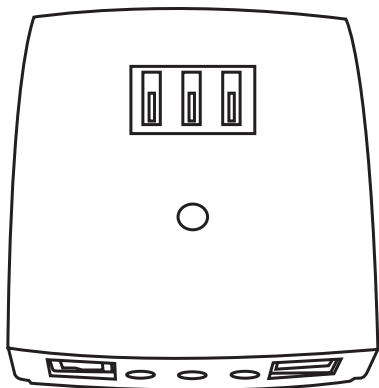
System Requirements

Before starting the installation of the ADSL WLAN Router, make sure your computer is equipped with:

- LAN interface (Ethernet) with RJ45 socket
(Windows NT4, 98, ME, 2000, XP, Vista, Mac OS 9.x, 10.x)

Step 1: Install the ISDN ADSL Splitter

The ADSL technology uses the existing telephone line for the broadband entrance. With the ISDN installation a ISDN ADSL-Splitter must be installed to separate the frequency ranges of ADSL and ISDN and to prevent disturbances at ISDN phones or fax machines. Use for installation the provided ISDN ADSL-Splitter.



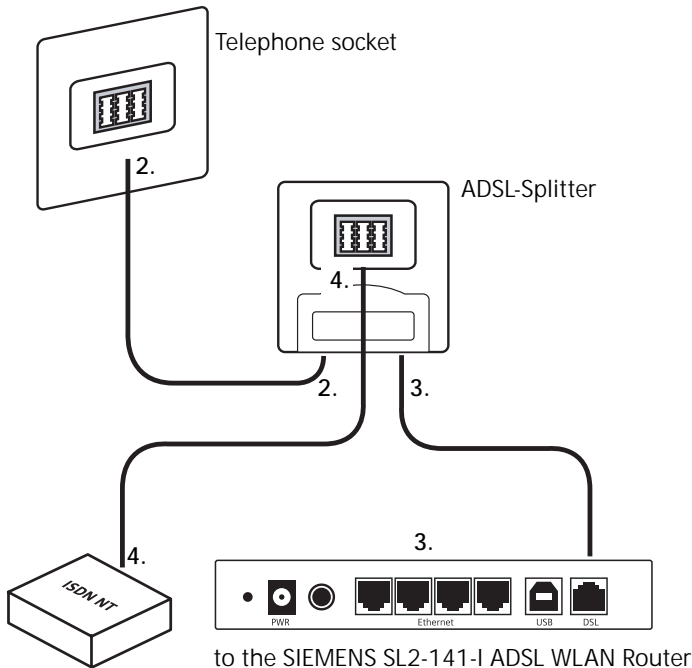
ISDN ADSL-Splitter

Important note:

- With an ISDN installation only one ISDN ADSL-Splitter is needed for the entire ISDN installation.
- For Phones or fax machines with ADSL and ISDN there is no Line-Filter needed.
- Please contact your support-technician if your ISDN-NT (ISDN Networkterminator) is not equipped with a plugged incoming line.

Connect the ADSL WLAN Router to the exchange connection

1. Remove the plug on the telephone or the fax machine from the telephone socket.
2. Insert the ADSL-Splitter into the telephone socket. Plug the plug of the ADSL-Splitter cable (enclosed, mostly black) into the "Phone" (F) plug of the telephone socket and the other plug into the "Line" (Amt) plug of the ADSL-Splitter.
3. Set up the connection between the ADSL-Splitter and the ADSL Modem. To do this, insert the end of the ADSL cable (gray) into the socket of the ADSL-Splitter with the "DSL" (Modem) symbol.
Insert the other end of the ADSL cable (gray) into the socket on your ADSL WLAN Router marked "DSL".
4. Set up the connection between the ADSL-Splitter and the ISDN-NT. To do this, insert the available phone cord (same construction as the ADSL-Splitter cable) into the middle plug of the ADSL-Splitter. The middle plug is marked with a none crossed symbol of a phone.
Connect the end of the phone cable into the "Line" plug of the ISDN-NTBAs.

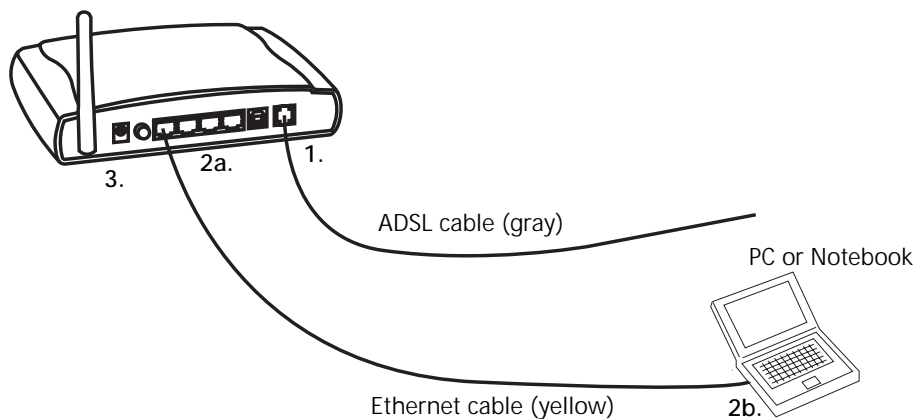


Step 2:

Connect the ADSL WLAN Router via Ethernet interface

1. With your computer off, plug the end of the ADSL cable (gray) into the DSL port of your ADSL WLAN Router.
- 2a. Connect the Ethernet cable (yellow) to the LAN port of your ADSL WLAN Router.
- 2b. Connect the other end of the Ethernet cable to the LAN port of your computer.
3. Connect the power supply to your ADSL WLAN Router.
4. Plug the power plug into a power outlet.
5. Turn your computer on and wait until your operating system (OS) is started up.
6. Proceed with step 3 (Read first the introduction and continue then with the paragraph related to your operating system).

SIEMENS SL2-141-I
ADSL WLAN Router



Step 3: USB driver installation



The USB driver is only working on the following operating system (OS):
Windows 98, Windows 98 SE, Windows ME, Windows 2000 and Windows XP.

If your ADSL WLAN Router is NOT equipped with an Ethernet interface you have to install first the USB driver in order to be able to configure your ADSL WLAN Router. For the driver installation proceed as follows:



Windows 98 users need the Windows 98 CD-ROM to complete the installation.

1. Insert the SIEMENS installation CD-ROM in your CD-ROM drive.
The CD will be started automatically.



In case the "setup wizard" does not start automatically, open a **Run** window via **Start --> Run** and enter the path `x:\USB_Driver\windows\setup.exe`, where **x** represents the drive letter of the CD drive.

2. Click on **Run** or **Setup**.
3. Connect the USB cable to your ADSL WLAN Router. The driver will be installed automatically.



Note for Windows 98 users: If prompted, you need to insert the Windows 98 CD-ROM in your CD-ROM drive to complete the installation.

4. You will be asked whether the PC should be restarted. Click on **Close**.
5. Click on **Finish**.

Step 4:

Configure the PC (TCP/IP settings)

Introduction

In step 4, you will learn how to configure your computer to communicate with the SIEMENS ADSL WLAN Router.

To do this, you will need to configure your PC's network settings to **obtain an IP address automatically**. Computers use IP addresses to communicate with each other across a network or the Internet.

Find out which operating system your computer is running, such as Windows 98, Windows ME, Windows NT4, Windows 2000, Windows XP, Windows Vista or Macintosh OS 9.x, 10.x. You will need to know which operating system your computer is running. You can find out by clicking on **Start -> Settings**. (If your Start menu doesn't have a Settings option, you are running Windows XP or Windows Vista. In this case you can select the Control Panel directly from the Start menu.) Then, click on **Control Panel** and double-click on the **System** icon. Click the **Cancel** button when done.

Once you know which operating system you are running, follow the directions in this step for your computer's operating system.

The next few pages tell you, step by step, how to configure your TCP/IP settings based on the type of Windows or Macintosh operating system you are using.

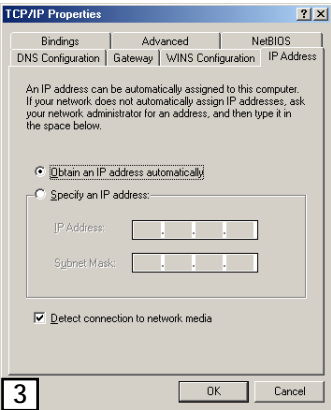
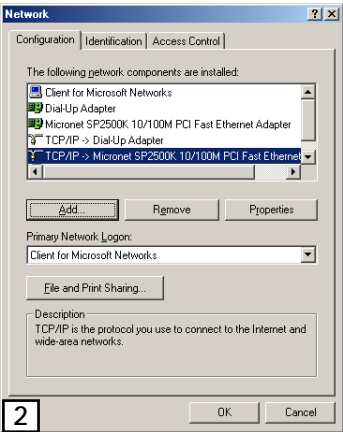
Step 4a:

Configure the PC (TCP/IP settings) for Windows 98 and Windows ME



Windows 98 users need the Windows 98 Installation CD to complete the installation.

1. Click on **Start -> Settings -> Control Panel**. Double-click on the **Network** icon to open the Network screen.
2. Select the **Configuration** tab and highlight the **TCP/IP line** for the applicable Ethernet adapter¹⁾. If the word TCP/IP appears by itself, select that line²⁾. Click on **Properties**.
3. Click the **IP Address** tab and select **Obtain an IP address automatically**.
4. Click on the **Gateway** tab and verify that the **Installed Gateway** field is blank. Click on **OK**.
5. Click again on **OK**. Windows may ask you for the original Windows Installation disk or additional files. Supply them by pointing to the correct location, e.g. D:\win98, where "D" represents the letter of your CD-ROM drive.
6. If Windows asks you to restart your PC, click on **Yes**. If Windows does not ask, restart your computer anyway.



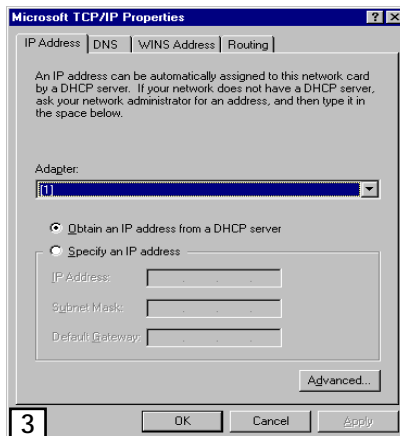
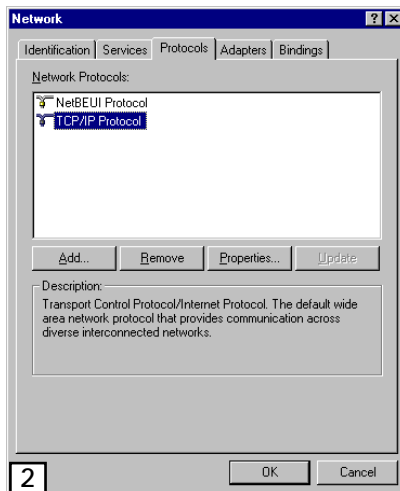
¹⁾ Choose a TCP/IP entry whose name contains **Ethernet adapter**. Do not choose a TCP/IP entry whose name is PPPoE, VPN or other.



²⁾ If there is no TCP/IP line listed, refer to the User Manual on your Aethra CD-ROM to install TCP/IP now.

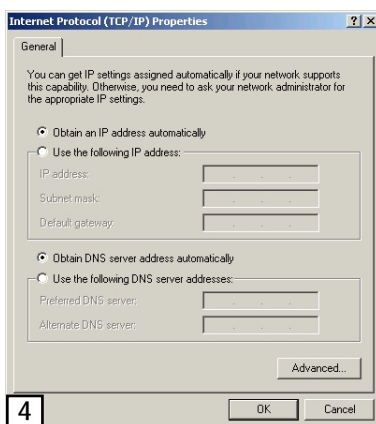
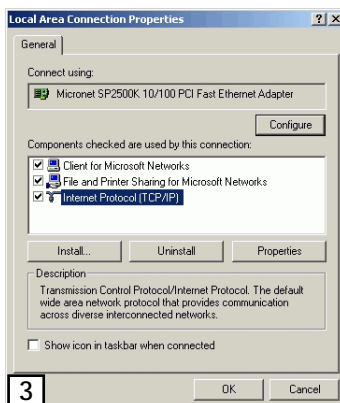
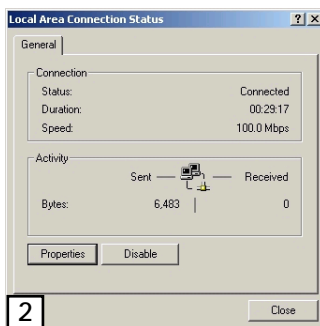
Step 4b: Configure the PC (TCP/IP settings) for Windows NT4

1. Click on **Start -> Settings -> Control Panel**. Double-click on the **Network** icon. The Network screen will appear.
2. Select the **Protocol** tab and highlight the **TCP/IP** line. Click on **Properties**.
3. Select the **IP Address** tab and select **Obtain an IP address from a DHCP server** and click on **OK** on the subsequent screens to complete the PC's configuration.
4. When prompted with "Activate DHCP" dialog box, click **Yes**.
5. Restart your computer.



Step 4c: Configure the PC (TCP/IP settings) for Windows 2000

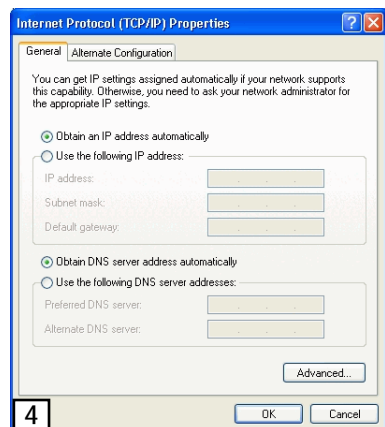
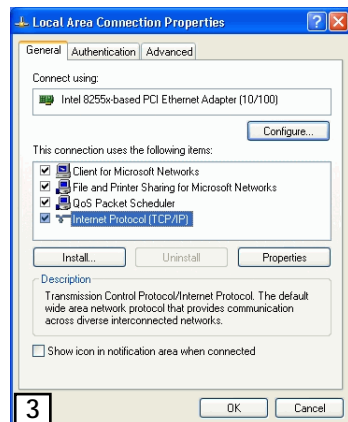
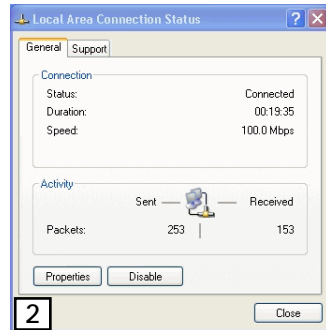
1. Click on **Start -> Settings -> Control Panel**. Double-click on the **Network and Dial-up Connections** icon. The Network screen will appear.
2. Select the **Local Area Connection** icon for the applicable Ethernet adapter (usually it is the first Local Area Connection listed). Double-click on **Local Area Connection** and click on **Properties**.
3. Select **Internet Protocol (TCP/IP)** and click on **Properties**.
4. Select **Obtain an IP address automatically** and click on **OK** on the subsequent screens to complete the PC's configuration.
5. Restart your computer.



Step 4d: Configure the PC (TCP/IP settings) for Windows XP

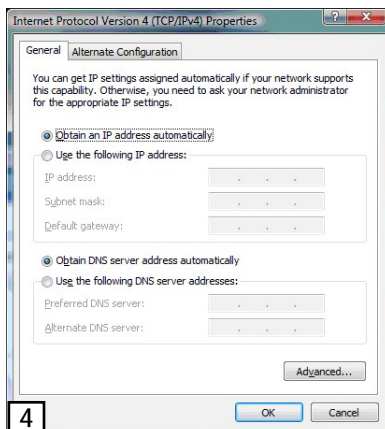
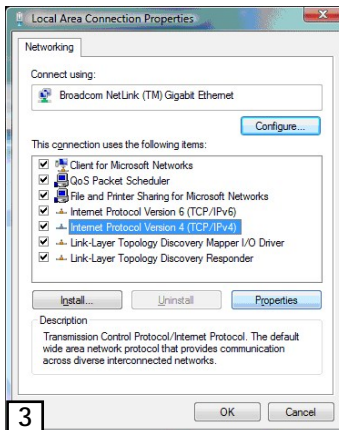
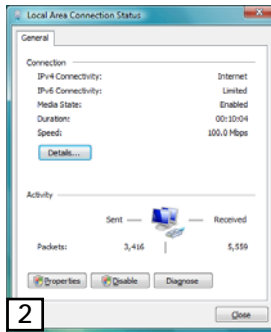
The following instructions assume you are running Windows XP's default interface. If you are using the Classical interface (where the icons and menus look like previous Windows versions), please follow the instructions for Windows 2000 (Step 4c).

1. Click on **start -> Control Panel**. Click on the **Network and Internet Connections** icon. Click on the **Network Connections** icon. The Network screen will appear.
2. Select the **Local Area Connection** icon for the applicable Ethernet adapter (usually it is the first Local Area Connection listed). Double-click on **Local Area Connection** and click on **Properties**.
3. Select **Internet Protocol (TCP/IP)** and click on **Properties**.
4. Select **Obtain an IP address automatically** and click on **OK** on the subsequent screens to complete the PC's configuration.
5. Restart your computer.



Step 4e: Configure the PC (TCP/IP settings) for Windows Vista

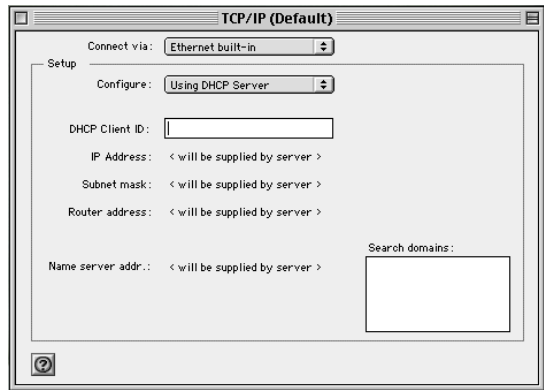
1. Click on start -> Control Panel. Click on the **Network and Sharing Center** icon. Click on **Broadband Connections** → **Properties**.
2. The "Local Area Connection Status" screen will appear. Click on the **Properties** button.
3. Select **Internet Protocol Version 4 (TCP/IPv4)** and click on **Properties**.
4. Select **Obtain an IP address automatically** and click on **OK** to complete the PC's configuration.
5. Click on the **OK** to finish the configuration.



Step 4f:

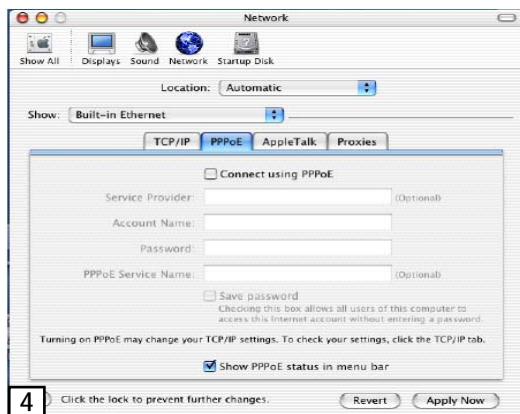
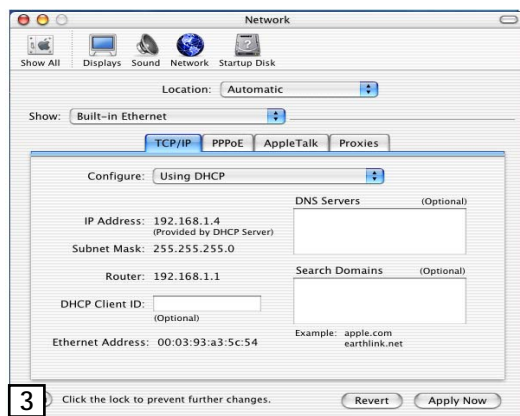
Configure the PC (TCP/IP settings) for Mac OS 9.x

1. From the Apple Menu, point to **Control Panels** and then click **TCP/IP**.
2. From the **Connect via** pull-down menu select **Ethernet built-in**. From the **Configure** pull-down menu select **Using DHCP Server**.
3. Close the **TPC/IP** window and click on **[Save]**.



Step 4g: Configure the PC (TCP/IP settings) for Mac OS X

1. From the **Apple Menu**, select **System Preferences...**
2. Click on the **Network** icon in the **Internet & Network** area.
3. From the **Show** pull-down select **Built-in Ethernet**. On the **TCP/IP** tab, select **Using DHCP** from the **Configure** pull-down menu.
4. On the **PPPoE** tab, make sure that the **Connect using PPPoE** check box is **NOT** activated. Click **Apply Now**.
5. Close the **Network** window.



Step 5: Configure the ADSL WLAN Routers (Internet Access)

1. Start your web browser (e.g. Internet Explorer) and type **192.168.1.1** in the address field of the browser. Press **Enter**. Enter in the field <Username> **admin** and in the field <Password> **admin** as well and click **Next**.
2. The **Quick Setup** window appears:

Adresse http://192.168.1.1/

SIEMENS Quick Start | Status | Advanced | Wireless | Management

Language: English ▼

Connect to Internet
Quick Setup

Connect to Internet

Your ADSL router is **not ready to connect** to Broadband.
Status: Down

Enter your Broadband user name and password, then click "Connect".

Internet Connection: pppoe_8_35_1
Total Online Time: 0 secs
Broadband User Name
Password



If the **Quick Setup** page is not displayed, please check the TCP/IP settings of your computer (**obtain IP address automatically** must be enabled). Find more information about the configuration in chapter 4.

Enter your **username** and **password**, which you can get from your provider, and click **Connect**>. The connection to the Internet will be established.



If the connection to the Internet won't be established, please proceed with step 3 and follow the instructions provided in this guide for basic installation.

3. Click on **Quick Setup** on the left side of the window "Quick Start".

The Quick Setup window appears:

The screenshot shows a window titled "Connect to Internet Quick Setup". On the right, there is a "Language:" dropdown menu set to "English". The main content area is titled "Quick Setup" and contains the following text: "This Quick Setup will guide you through the steps necessary to configure your ADSL router." followed by "Select the check box below to scan the Internet connection automatically. It is recommended that there is no any PVC configured in your ADSL router before performing auto-scanning connection." Below this text is a checked checkbox labeled "Auto Scan Internet Connection (PVC)". At the bottom left, a note states: "All original settings will be replaced by new settings after you finish these steps." At the bottom right, there is a "Next >" button.

4. Be sure, the **Auto Scan Internet Connection (PVC)** option is selected.

Click **Next >**.

The scanning process will be started and can take several minutes. Afterwards the detected connection will be displayed.

The screenshot shows a window titled "Connect to Internet Quick Setup". On the right, there is a "Language:" dropdown menu set to "English". The main content area is titled "Auto Scan Internet Connection" and contains the following text: "The scanning process will try to detect PPPoE or PPPoA connection provided by your ISP." followed by "Scanning Internet connection..." and "PVC(8/35): detected as PPPoE LLC/SNAP". Below this, a bold statement reads: "The ADSL router will configure "8/35 PPPoE LLC/SNAP" as the Internet connection to your ISP." At the bottom right, there are two buttons: "< Back" and "Next >".

5. Click **Next >**.

The Configure Internet Connection - WAN IP Settings window appears:

Language: English

Connect to Internet
Quick Setup

Configure Internet Connection - WAN IP Settings

Enter information provided to you by your ISP to configure the WAN IP settings.

☒ Obtain an IP address automatically

☐ Use the following IP address:

WAN IP Address:

☒ Enable NAT

MTU: (default: 1492)

Firmware: 3.28y
ADSL2+: A2pB021.d19b
Wireless: 3.91.41.0

6. Select **Obtain an IP address automatically** and enable NAT. Type 1492 in the MTU: field and click **Next >**.

The following window appears:

Language: English

Connect to Internet
Quick Setup

Configure Internet Connection - PPP User Name and Password

In order to establish the Internet connection, please enter PPP user name and password that your ISP has provided.

PPP User Name:

PPP Password:

Session established by: ☒ Always On

☐ Dial on Demand

Disconnect if no activity for minutes

☐ Manually Connect

Disconnect if no activity for minutes

7. For <PPP User Name> enter the **username** and for <PPP Password> the **password**. You can get this information from your Internet Service Provider. Select **Always On** and click **Next >**.

8. Take over the settings displayed in the **Configure LAN side Settings** window and click **Next >**. The LAN configuration will be started.

Connect to Internet
Quick Setup

Language: English

Configure LAN side Settings

Enter the ADSL router IP address and subnet mask for LAN interface and then enable DHCP server on LAN interface to provide IP address settings for your computers.

Primary IP Address:

192.168.1.1

Subnet Mask:

255.255.255.0

☐ Configure secondary IP address and subnet mask

MTU:

1500 (default: 1500)

☒ DHCP Server On

Start IP: 192.168.1.2

End IP: 192.168.1.254

Lease Time: 1 days 0 hours 0 minutes

☐ DHCP Server Off

< Back

Next >

9. The window **This Internet Connection - Summary** shows the WAN and LAN settings you made. The values must match to those values you get from your ISP. Click **Finish** to accept these settings and to terminate the configuration.

Connect to Internet
Quick Setup

Language: English

This Internet Connection -- Summary

Make sure that the settings below match the settings provided by your ISP.

Internet (WAN) Configuration:

VPI / VCI	8 / 35
Connection Type	PPPoE LLC/SNAP, Always On
NAT	Enabled
WAN IP Address	Automatically Assigned
Default Gateway	Automatically Assigned
DNS Server	Automatically Assigned
QoS	Enabled

LAN Configuration:

Primary LAN IP	192.168.1.1 / 255.255.255.0
Secondary LAN IP	0.0.0.0 / 255.255.255.255
DHCP Server	On 192.168.1.2 ~ 192.168.1.254
DHCP Lease Time	1 days 0 hours 0 minutes

Click "Finish" to accept these settings, and reboot the system.
Click "Back" to make any modifications.

< Back

Finish

| 18

10. The installation is done and your ADSL WLAN Router will reboot. This will take about 1-2 minutes.

The screenshot shows a web-based configuration interface for an ADSL router. On the left, a dark sidebar contains the text 'Connect to Internet Quick Setup'. The main area has a black header with 'Language: English' and a dropdown arrow. Below the header, the title 'Reboot ADSL Router' is displayed. The status text reads: 'The ADSL router has been configured and is rebooting.' Below this, instructions state: 'Close the ADSL router Configuration window and wait for 2 minutes before reopening your web browser. If necessary, reconfigure your PC's IP address to match your new configuration.'

11. The window **Connect to Internet** appears. If needed, enter the **username** and **password** and click **Connect**>. The connection to the Internet will be established.

The screenshot shows the 'Connect to Internet' configuration screen. The sidebar on the left is labeled 'Connect to Internet Quick Setup'. The main area has a black header with 'Language: English' and a dropdown arrow. The title 'Connect to Internet' is underlined. Below the title, it says 'Your ADSL router is **ready to connect** to Broadband.' A light gray box contains the following fields: 'Enter your Broadband user name and password, then click "Connect".'; 'Internet Connection: pppoe_8_35_1'; 'Total Online Time: 0 secs'; 'Broadband User Name' with an input field; 'Password' with an input field; and a 'Connect' button.

Step 6:

Configure the Wireless LAN (WLAN) of your ADSL WLAN Routers

Using radio waves, a wireless network introduces some security risks which are not present in a wired network; an unauthorized third party can intercept transmitted data, gain access to your wireless network. In order to make your wireless network as secure as a wired network you should apply, at least, the following guidelines.

To guarantee that your data is transmitted in a private manner, you should use the highest possible security settings in your WLAN. Make sure that each PC on your wireless network uses the same key as your access point.

The following example illustrates the encryption via 'WPA-PSK'. Note: you must configure the Access Point first and after that all connected devices.

1. Click **Wireless** and afterwards **Security**. Be sure, the **Enable Wireless Network** option is selected.



2. Click **Wireless** and afterwards **Security**.

3. Select Wireless Security: WPA-PSK.

Language: English

Basic Settings
Security
Access Control
Repeater

Wireless Security

This page allow you to protect your wireless network by specifying WEP, 802.1x, WPA, or WPA2 wireless security. Before setting up security, ensure that your wireless adaptors support the same type of security. Most support WEP, but not all support WPA, WPA2, or 802.1x.

Wireless Security: Disabled

Apply After enabling security and clicking Apply, you will lose the connection with your wireless ADSL router. You should now set-up security on your wireless adapters in order to re-establish the connection.

Disabled
64-bit WEP
128-bit WEP
802.1x
WPA
WPA-PSK
WPA2
WPA2-PSK
Mixed WPA2/WPA
Mixed WPA2/WPA-PSK

4. Select **Data Encryption: AES** and enter your key (password) in the field **Pre-Shared Key**:. The chosen key must have at least 8 digits, but not more than 64 digits. Use digits from 0 to 9 and letters. Please keep this key safe and be sure you are configuring your Access Point(s) with the same key as your ADSL WLAN Router.
5. Click **Apply**. Afterwards you must configure all devices connected to your ADSL WLAN Router.

Language: English

Basic Settings
Security
Access Control
Repeater

Wireless Security

This page allow you to protect your wireless network by specifying WEP, 802.1x, WPA, or WPA2 wireless security. Before setting up security, ensure that your wireless adaptors support the same type of security. Most support WEP, but not all support WPA, WPA2, or 802.1x.

Wireless Security: WPA-PSK

Data Encryption: AES

WPA Pre-Shared Key

Enter the key to be between 8 and 63 ASCII characters, or 64 hexadecimal digits

Format: ☐ Hexadecimal digits (0-9,A-F, and a-f are valid) ☒ ASCII characters (any printable characters are valid)

Pre-Shared Key:

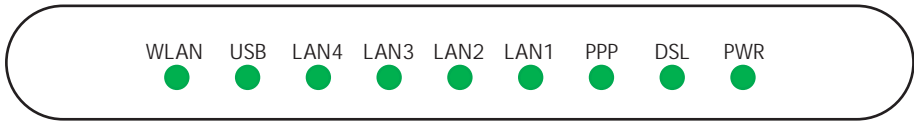
WPA Group Rekey Interval: 0 seconds

Apply After enabling security and clicking Apply, you will lose the connection with your wireless ADSL router. You should now set-up security on your wireless adapters in order to re-establish the connection.

Step 7:

Front panel system messages

The following illustration shows the front panel of the ADSL WLAN Routers:



LED Indicators

The ADSL WLAN Router is equipped with LEDs on the front panel as described in the table below:

LED	Colour	Status	Description
WLAN	Green	On	WLAN connection is present and active
		Off blinking	No WLAN connection Traffic
USB	Green	On	USB connection is present and active
		Off blinking	No USB connection Traffic
Ethernet 1 - 4	Green	On	Ethernet connection is present and active (Port 1, 2, 3 or 4)
		Off blinking	No Ethernet connection (Port 1, 2, 3 or 4) Traffic
PPP	Green	On	PPPoE or PPPoA connection is present
		Off	No PPPoE or PPPoA connection or the user is logged off
DSL	Green	On	ADSL connection is present and active
		Off blinking	No ADSL connection Traffic
Power	Green	On	Unit is powered on
		Off	Unit is powered off
	Red	On	Unit is initializing

Declaration of Conformity

We hereby declare that the product:

SIEMENS ADSL SL2-141 (ADSL2+ Router for POTS), S1621-Z121-A

SIEMENS ADSL SL2-141-I (ADSL2+ Router for ISDN), S1621-Z120-A
(Name of product, type or model, batch or serial number)

is in conformity with the following standards:

ETSI EN 300 328 V1.6.1(2004), EN 50385:2002 :SAR

ETSI EN 301 489-1 V1.4.1:2002/ ETSI EN 301 489-17 V1.2.1:2002

RFI Emission:

EN 55022 :1998 + A1 : 2000+A2:2003 Class B: : Conducted and radiated test
EN 61000-3-2: 2000 Class A : Limits for harmonic current emission
EN 61000-3-3:1995+A1: 2001: : Limitation of voltage fluctuation and flicker
in low-voltage supply system

Immunity:

EN 55024:1998+A1:2001+A2:2003 : Immunity standard
IEC 61000-4-2:1995+A1: 1998+A2:2000+A2:2001 : ESD
IEC 61000-4-3:2002+A1:2002 : RS
IEC 61000-4-4:1995+A1:2000+A2:2001 : EFT
IEC 61000-4-5:1995+A1:2000+A1:2001 : Surge
IEC 61000-4-6:1996+A1:2000+A1:2001 : CS
IEC 61000-4-11:1994+A1: 2000+A1:2001 : Voltage Dips

We hereby verify that: The equipment above listed has tested for compliance with The European Council Directive 89/336/EEC. & The Low Voltage Directive 73/23/EEC. and The Amendment Directive 93/68/EEC. and Radio & Telecommunications Terminal Equipment Directive(R&TTE) 1999/5/EC. Note: Full test report are available if required.

Zurich, 25.11.05

(place and date of issue)

Daniel Ebinger, VP Broadband Division

(names and signatures of authorized persons)

